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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/773,339	01/31/2001	Takeshi Sato	FUJR 18.275	5975

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EXAMINER

SHINGLES, KRISTIE D

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/773,339

Applicant(s)

SATO ET AL.

Examiner

Kristie Shingles

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant has not amended any claims. Claims 1-18 are still pending.

Abstract

1. The proposed corrections made to the abstract filed 11/10/2004 have been accepted by the Examiner. Thus the objection to the abstract is withdrawn.

Response to Arguments

2. Applicant's arguments filed 11/10/2004 have been fully considered but they are not persuasive in reference to the cited prior arts *Ginossar* (USPN 6,477,143) and *Gao et al* (USPN 5,548,533). The rejection of claims 1-18 is sustained and rendered below.

A. **Regarding Independent Claims 1, 10, 14 and 15**—as stated in the Applicant's Remarks, Applicant asserts that *Ginossar* only shows "traffic regulation control is performed with respect to a maximum segment size threshold determined by the level of congestion." Applicant asserts *Ginossar* fails to teach the Applicant's claimed, "regulation control on a maintenance and operation process when said traffic intensity is smaller than said traffic regulation start traffic intensity". The Examiner's remarks follow below.

A.1. It is the Examiner's position that *Ginossar* teaches a traffic regulation means, which is inherently related to the segment size of the packets being transmitted and the amount of congestion evident on the network. According to *Ginossar*, regulation control is based on a congestion indicator that determines the extent of adjustment done to the basic data segment size.

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The sizing of the basic data segment is determined by the congestion information and is adjusted accordingly in response to the congestion indicator and information (col.9 line 44-col.10 line 30). Under congestion conditions, the router transmits a smaller basic segment size, which informs the transmitting node to reduce its basic segment size to a smaller size, so that the segment sizing is “adaptively related to the state of congestion of the network path”. Furthermore as the congestion severity level increases, the “maximum segment size decreases accordingly,” wherein the congestion severity level is an indicator relative to the traffic intensity (col.11 line 19-col.15 line 6). Before processing of the data for transmission, a determination of the data segment size is made in comparison with the maximum segment size, and notifications are sent informing the nodes of the maximum allowed data segment size—this in turn controls traffic intensity, the transmission rate on the network and the operation thereof by maintaining the transmission process of smaller data packets and restricting packets exceeding the maximum segment size threshold (col.16 line 3-col.19 line 35).

B. Regarding Claims 5 and 9, as stated in Applicant’s Remarks, Applicant asserts that *Gao et al* only describes “central processor and network peripheral processors monitor congestion and configure congestion threshold levels, traffic measuring and comparison comprised in central processor reports, traffic regulation control achieved by comparing message traffic thresholds with data gathered in central processor congestion reports.” Applicant asserts *Gao et al* fail to teach applicant’s claimed feature of “regulation control on a maintenance and operation process when said traffic intensity is smaller than said traffic regulation start traffic intensity”. The Examiner’s remarks follow below.

B.1. It is the Examiner’s position that *Gao et al* teach an overload control system responsive to the status indicators comprised in congestion reports. Upon broadcasting the congestion status information in congestion reports, after receiving the status, the processors accordingly regulate the threshold dynamically. The levels of the congestion status include,

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“below capacity”, “near capacity”, and “above capacity or overload,” wherein congestion status is indicative of traffic intensity (col.3 line 5-col.4 line 65). The broadcasted congestion status indicates whether the congestion status is less, more or equal to the threshold value. If less, then the network system stabilization is maintained for steady operation and transmission, thus no adjustments are necessary and the thresholds are maintained relative to the congestion reports (col.5 line 1-col.6 line 34 and col.7 line 1-col.8 line 48).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4 and 10-18 are rejected under 35 U.S.C. 102(e) as being anticipated by *Ginossar* (USPN 6,477,143).

a. **Per claims 1, 10, 14 and 15** (differs only by purported statutory class), *Ginossar* teaches a communication apparatus for communicating with a plurality of stations and executing regulation control at a time of congestion, comprising:

- congestion monitoring means for monitoring a congestion state, setting a congestion level and determining whether or not to perform regulation based on said congestion level (col.8 lines 43, 50-53 and co.12 lines 31-35; congestion sensing incorporates monitoring);

- traffic measuring means for measuring a traffic intensity (col.12 lines 23-26 and 43-47; measures traffic intensity by investigating and updating the congestion severity from the network);
- traffic comparison means for comparing said traffic intensity with a preset traffic-regulation start traffic intensity when it is determined that regulation is to be performed (col.12 lines 48-52; traffic comparison is made with respect to congestion severity data captured from the network by the router) and
- regulation control means for performing traffic regulation control when a comparison result shows that said traffic intensity is equal to or greater than said traffic-regulation start traffic intensity, and performing regulation control on a maintenance and operation process when said traffic intensity is smaller than said traffic-regulation start traffic intensity (col.15 lines 64-col.16 lines 1-14; traffic regulation control is performed with respect to a maximum segment size threshold determined by the level of congestion severity).

b. **Per claims 2, 11 and 16** (differs only by purported statutory class), *Ginossar* teaches the communication apparatus according to claims 1, 10 and 15, wherein said congestion monitoring means uses at least one of a processor occupancy rate and a response time with respect to a received signal as an index at a time of setting said congestion level (col.8 lines 61-64 and col.15 lines 54-63; implementation of transmission rate and the timeout period achieves function of processor occupancy rate and response time in congestion monitoring).

c. **Per claims 3, 12 and 17** (differs only by purported statutory class), *Ginossar* teaches the communication apparatus according to claims 1, 10 and 15, wherein said regulation control means executes said traffic regulation control by changing stations to be regulated and a number of said stations to be regulated (col.9 lines 54-58 and col.13 lines 66-col.14 lines 1-13; traffic regulation control is achieved by changing the sizes of the data segments received from the nodes and essentially preventing node transmission based on the severity of the congestion level from that node).

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d. **Per claims 4, 13 and 18** (differs only by purported statutory class), *Ginossar* teaches the communication apparatus according to claims 1, 10 and 15, wherein said regulation control means counts a number of signals received from a station to be regulated and computes a ratio of a signal to be regulated from a count value, whereby said regulation control means executes said traffic regulation control with a same congestion level in accordance with said ratio (col.9 lines 8-30 and 49-53; adjustments to data sizes are made in regard to sensed congestion level wherein a data segment size value is determined for comparison with the maximum segment size allowable by the router).

5. Claims 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by *Gao et al* (USPN 5,548,533).

a. **Per claims 5 and 9** (differs only by purported statutory class), *Gao et al* teach a mobile communication system for communicating with a plurality of stations and executing regulation control at a time of congestion, comprising:

- a plurality of mobile communication exchanges for performing exchange control on signals with respect to radio stations (Abstract and col.2 lines 55-60; mobile communications system includes a plurality of base stations each serving mobile handsets and coupled to a mobile switching center controlled by a central processor); and
- a mobile communication control station including a communication apparatus comprising congestion monitoring means for monitoring a congestion state, setting a congestion level and determining whether or not to perform regulation based on said congestion level, traffic measuring means for measuring a number of signals received from said mobile communication exchanges as a traffic intensity, traffic comparison means for comparing said traffic intensity with a preset traffic-regulation start traffic intensity when it is determined that regulation is to be performed, and regulation control means for performing traffic regulation control when a comparison result shows that said traffic intensity is equal to or greater than said traffic-regulation start traffic intensity, and performing

regulation control on a maintenance and operation process when said traffic intensity is smaller than said traffic-regulation start traffic intensity (col.2 lines 60-63 and col.1 lines 49-64; central processor and network peripheral processors monitor congestion and configure congestion threshold levels, traffic measuring and comparison comprised in central processor reports, traffic regulation control achieved by comparing message traffic thresholds with data gathered in central processor congestion reports).

b. **Per claim 6**, *Gao et al* teach the mobile communication system according to claim 5, wherein said congestion monitoring means uses at least one of a processor occupancy rate and a response time with respect to a received signal as an index at a time of setting said congestion level (col.3 lines 12-22, col.6 lines 35-56, and col.9 lines 31-48; congestion monitoring makes use of the call processor occupancy and the queue delay).

c. **Per claim 7**, *Gao et al* teach the mobile communication system according to claim 5, wherein said regulation control means executes said traffic regulation control by changing mobile communication exchanges to be regulated and a number of said mobile communication exchanges to be regulated (col.9 lines 10-26; regulation control implements change by reduction factors chosen according to the congestion level's message threshold).

d. **Per claim 8**, *Gao et al* teach the mobile communication system according to claim 5, wherein said regulation control means counts a number of signals received from a mobile communication exchange to be regulated and computes a ratio of a signal to be regulated from a count value, whereby said regulation control means executes said traffic regulation control with a same congestion level in accordance with said ratio (col.6 lines 57-64 and col.10 lines 5-22; count values and ratios are maintained for monitoring delayed messages).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. *Kapoor* (USPN 5,751,969) disclosed an apparatus and methods for predicting and managing congestion in a network.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie Shingles whose telephone number is 571-272-3888. The examiner can normally be reached on Monday-Friday 8:30-6:00.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kristie Shingles
Examiner
Art Unit 2141

kds


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SUPERVISORY PATENT EXAMINER